

# Research on Champa pottery in ten centuries AD using the socio-archaeological and techno-archaeological approaches<sup>1</sup>

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## Abstract

The concept of Champa pottery used in this article refers to the objects made of clay, no glaze, firing rate below 1000°C, which are found in archaeological sites distributed in the territory of Champa State - Central Vietnam (from Quang Binh province to Binh Thuan province) (see Map 1) during the period of the first ten centuries AD.

Based on the research results of pottery in the Champa archaeological sites, this article is going to focus on the following issues:

- Some notes of approaches technological and social archaeology in the research on pottery.
- Research on Champa pottery in the access of technological and social archaeology: results and concerns.
- Some research results of Champa pottery.

## Content

During over a century of studying Champa culture, pottery is a new type of cellular material which has been intentionally studied systematically in recent years. The results obtained from archaeological excavations in the Central of Vietnam have contributed to identify the types, materials, manufacturing techniques, decorative art of Champa pottery in the different stages. The resources of excavations have added and provided a scientific basis to review the collected Champa potteries being stored at the museums. With the two above resources, the researchers were initially aware of Champa ceramics in many areas, contributing to a more comprehensive understanding of the relics, cultural relics in the history of Champa.

## 1. Some notes of approaches technological and social archaeology in the research on pottery

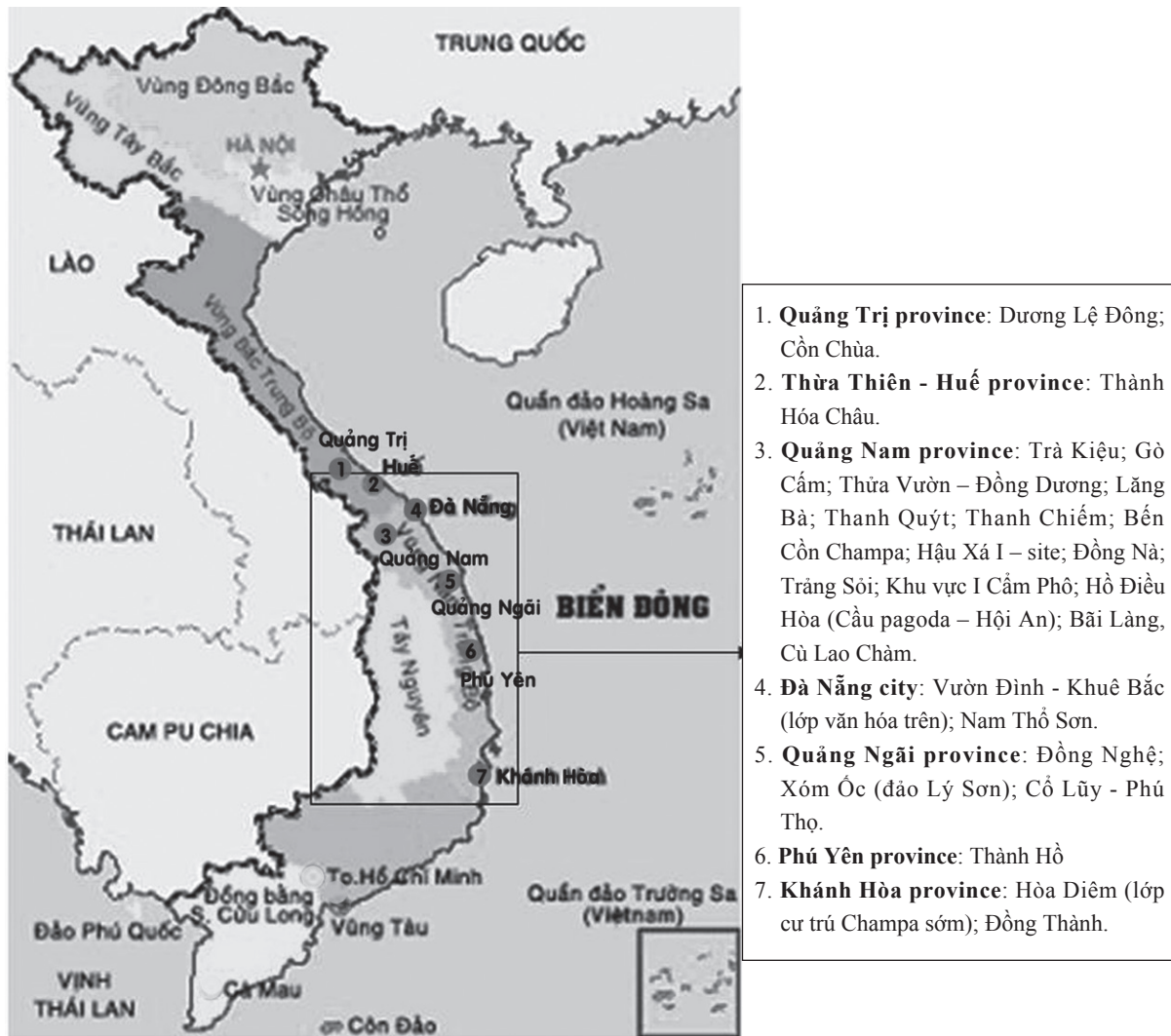
To traditional and modern archaeology, pottery is always a source of primary research materials, the “lodestar” for archaeologists to study a place or a culture. It is mined from the technical perspective, the producing organization and consumption to chemical analysis to find the source of production or exchange, and especially from the functional aspects of culture - economics – society of pottery (Barbara J. Mills 1989, Christopher Fung 2000). Ceramics is also used to determine the identity of a nation, a group of people, or

as criteria to determine the level of standardization production... (Innocent Pikirayi 2007).

The studies of pottery are considered as the leading and oriented ones in archeology. Besides the studies of morphological characteristics of pottery like what the archaeology has been interested in for many years, the studies from the mid-twentieth century until now have focused on the matters of economic exchange, producing techniques and places, ways of production organization and manufacturing process from raw material extraction to product distribution, the effects of, cultural relationships and exchanges on the production, the trade. The researches on pottery also

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**Map 1** Archaeological sites of the Champa culture in the Central of Vietnam were excavated, dating from the early of the first ten centuries AD

have contributed to understand about the economics - politics of the early and developed states and the nations. That is why the studies of technological and social archeology ... is gradually being valued and appreciated in the study of ceramics.

**Archaeology of Technology:** the study on technique has great potential with rich data sources, including archaeological evidence and data analysis in the laboratory, the data collected from experimental and ethnographic materials (Lam Thi My Dung 2009).

**Archaeology of technology in ceramics study:** the study of pottery from a technological perspective such as material composition, ceramic soil processing techniques, the ceramic producing techniques by applying the natural scientific (such as methods of geochemistry, biochemistry, physics...), technical methods in combination with typological meth-

ods, testing methods and experimental techniques.

**Social Archaeology:** Reconstructing the nature and social organizations by applying the archaeology of settlement structure, burial place, the distribution of warehouses, castles ... to classify society. The document such as written, oral, linguistic, ethnic archaeological material ... are considered as the useful additional sources to help the archaeologists in interpretation of the social stratification, state formation ...

Belong to the field of social archaeological study, there are other sub- subjects such as archaeology of Burial and Death, Archaeology of Individual and Identity; Investigating Gender) ... (Lam Thi My Dung 2009).

The purpose of social archaeology approaches in research of pottery is to investigate the role and the function of potteries in the life of people both in physical and mental aspects. To some extent, this type of approach is also known

as Ceramic Sociology - potteries can be used in studying the social boundaries and changes in social organizations as well as explain the living ways of communities. Although the sociological approach of pottery is pretty limited such as the lack of solid theoretical basis, more vague concepts and limited internal functions but it has been applied in many studies of pottery, especially in the studies containing the combination and comparison between the archaeological material and the ethnographic record (William A. Longacre and Miriam Stark 1992).

## **2. Research on Champa pottery in the access of technological and social archaeology: results and concerns.**

The result of applying the methods of technological archaeology in the study of Sa Huynh - Champa potteries has actively supported in finding out the exploitation of raw materials and producing techniques of Sa Huynh - Champa ceramics in order to consider the inheritance or cultural change between the two periods. Since pottery materials are mainly clay containing different chemical elements depending on the location and exploitation resources, based on this, the analysis results of the material components of the potteries in the archaeological relics when studied, compared with the clay in the same distribution area will help verify the origin of pottery as produced by materials exploited locally or taken from other places or the product of exchange and trade, contributing to learn about exploiting and handling materials; producing and firing techniques...

We have chosen the analysis of mineral composition and calcining temperature by the Ronngnen diffraction method and petrographic microscope some samples of Sa Huynh, Champa potteries and material clay in the Thu Bon River Basin (this area has concentrated density distribution of Sa Huynh cultural vestiges and Champa) to find out the origin of materials, initially compare the material handling and technical level of producing potteries between residents of Sa Huynh and Champa culture.

The analysis results of the mineral composition of the

three Sa Huynh pottery samples (including a pottery coffin jar and two grave potteries) showed that the three samples are all pottery minerals (high quartz content accounted for 80% - 95%) which proved not to be the selected potter's natural resources, maybe the soil making potteries was taken from pottery sediments on the terrace surface of the river. All the three samples have poor pottery agglomeration, probably due to two following reasons: not high firing temperature or not good material sources, and many impurities. When petrographic observations of the three pottery samples were done, a pottery quartz surface phenomena was found, even in rocks with cracks of the samples, it was showed that the three samples were heated at quite high temperature (over 800<sup>0</sup>C) or the incubated firing time prolonged. Thus, the poor agglomeration ability in pottery is caused by the not good ingredients, not selected and filtered to remove impurities of soil materials, very high proportion of sand in pottery materials to the phenomenon of "empty fabric/body"<sup>2</sup> of the Sa Huynh ceramic samples (Nguyen Anh Thu, Tran Thi Sau 2011b). This is also a common phenomenon, which can be easily seen with the naked eyes in the Sa Huynh potteries. Therefore, the convenience of exploitation of raw materials for ceramics was considered the most important factor by Sa Huynh residents, they exploited raw materials near their area of residence (the source of clay formed from alluvial river, exploited on the surface of the ancient river terrace), the filter washing techniques and removal of impurities in the clay pottery material were not paid attention to.

However, they mastered the nature of the alluvial river soil, they cleverly offset the loose characteristic of pottery with solid, hard and thick layers of slip by firing method and control of temperature.

It were the high pottery firing temperature (over 800<sup>0</sup>C) and the same hardness in the pottery inner and outer slips which led to the assumption that when the large pottery coffin jars were fired, Sa Huynh residents could have given wood and straw inside the smoldering artifacts for several hours<sup>3</sup>, rather than the conventional pottery firing in the past and nowadays (Lam My Dung, Nguyen Hong Kien,

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<sup>2</sup>Term "pottery with empty fabric/body" has been using to refer one type of pottery well known in Sa Huynh culture. Due the large amount of sand in clay composition, the paste of pottery is loose, on many potsherds found in archaeological excavations we have recognized only the inner and outer slips, the fabric (body) located between the slips was fallen.

Hoang Thuy Quynh 2011).

The analysis results of Champa pottery sample and material clay showed that the choice of clay resources and its exploitation to make pottery was different from the previous (Sa Huynh) period. The analysis results of mineral components of the four material clay samples in the Thu Bon River Basin (2 samples in the area of Dien Ban District, Quang Nam, a sample at Tra Kieu area (Duy Xuyen, Quang Nam), a sample at the site of Ruong Dong Cao (Hoi An)) and 15 Champa pottery samples showed the similarities in the mineral composition between the material clay sample and the pottery one in the archaeological sites in the same area, they derived from river sediments which showed the Champa potters had exploited and made use of the available clay in the ancient alluvial terrace along the Thu Bon River, most concentrated in Dien Ban District, Quang Nam and Hoi An region. The clay sources were mined from a depth of 1m-3m, so the quality was quite good. Observed with the naked eyes, it was clear that Champa ceramics has quite solid bone, smoother than Sa Huynh ceramics. The analysis results of the firing temperature showed that the ceramic Champa samples were burnt under not high temperature (about 500<sup>0</sup>-700<sup>0</sup>C), the heated incubation period might be prolonged.

The proportion of the remaining mineral composition in the 15 pottery Champa samples was accounted for just over 50%, suggesting that some substances which are not stable to heat were lost during heating, proved that the Champa potters added to the pottery clay material a certain amount of non plastic substances (Nguyen Anh Thu Tran Thi Sau 2011a). Thus, during the Champa culture period, the improvement was not just a matter of better exploitation and material handling, the clay material was washed and filtered to remove impurities, mixed some other additives to make the Champa potteries have higher quality, fine texture, colorful, easy to shape with higher pragmatism because of not very high firing temperature, no heating in the complicated specialized kiln and less fuel.

Thus, the results of the technical studies have effectively

supported to explaining the problems of mining and processing raw materials and evaluation the level of ceramic producing techniques, then understanding the inheritance or cultural changes between the two cultural periods Sa Huynh - Champa.

The results of comparing the pottery types of the two phases Sa Huynh and Champa cultures also showed the following notes:

- Regarding location of distribution: Basically, there was a fit in the area of the two cultures and this was the basis for the two-phase potteries were made from the common sources of raw materials - clay formed by river sediments and additives were plant residues and coarse or fine sand.

- Regarding material: Sa Huynh potteries had only the coarse pottery; Cham potteries had at least two pottery types of coarse and fine.

- Regarding the nature of cultures: Sa Huynh pottery assemblage mainly derived from the burial sites (related to the dead people and death), until now, the pottery from habitation sites has only found in an area of Thon Tu. Champa potteries yielded from a variety of sites mainly related to activities of living communities such as settlements, cities...

The similarities in the pottery collections of the two cultures lay mainly in some types of cooking pottery and pottery raw materials, slightly raw such as steam boiler of medium and small size, some meniscus bowls and bowls or cups with a high empty slightly flared feet. The inheritance from Sa Huynh pottery culture also appeared in the treatment of the pottery surface, some types of special decorative water waves, pottery processing techniques, firing techniques in open kilns.

If the similarity and the difference level between the two collections of pottery being compared, it is easy to recognize how much the difference is bigger than the degree of similarity. This can be explained by the following reasons:

- The similarity of (mostly) cooking pottery and some other common daily - used things of the raw, slightly raw ceramics (by the comparison between the type of cooking pottery and the daily - used in some areas of Champa with

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<sup>3</sup>In some Sa Huynh culture cemeteries such as An Bang, Hoi An, Lai Nghi, Dien Ban ... , there were some intact rims of burning charcoal inside and outside the bottom of the jar. In the past, we usually associated this phenomenon with the grave heating custom. However, this can be interpreted in a different way. It is possible that the Sa Huynh prepared their grave in advance by heating the jar right at the tombe pit in sand dunes, each jar itself is used as the kiln).

the residence pottery of Sa Huynh in Thon Tu site) suggests that both Sa Huynh and Champa communities have the same characteristics of the living environment and living space, earning way, life organization, life style, behaviours with the natural environment.

- The similarity in the types of coarse and slightly coarse pottery also shows the long tradition of conservation of the pottery known as the folk or indigenous, which has small production extent but densely distributed area, simple products with high economic efficiency and accessibility.

- First and foremost, the difference stems from changes in social structure, from the form of chiefdoms into the states.

- The changes in the spiritual life, burial rites and receiving the new religions and beliefs.

- The changes in intensity and exposure trends and receiving exogenous cultural factors ...

Therefore, Champa pottery has the complex origin. Along with the self in the process of development, this line of potteries was ever under the influence of the previous one and absorbed the elements from the other ceramic lines in the areas. The ceramic materials also contributed to our knowledge about Champa culture, this is an open, self-developed and integrated culture to develop throughout the length of history.

### 3. Some research results of Champa pottery in the first ten centuries AD

#### 3.1. Types of Champa pottery in the first ten centuries AD

Along with other features such as sorting, mining, clay material handling, forming and decoration techniques, Champa pottery types provide valuable information to study the issues of society, economy... of Champa state in history. Especially, the issues of interaction with the natural environment, mining, water use, food storage, food preparing, family activities, community activities, rituals, rites... will be clarified by the researches on pottery.

Champa pottery in the first ten centuries AD is divided into three main groups:

- Group 1: Native/Local pottery.
- Group 2: Pottery produced locally but under the impact or influence of exogenous cultural factors from China, India.
- Group 3: Pottery imported from outside world such as

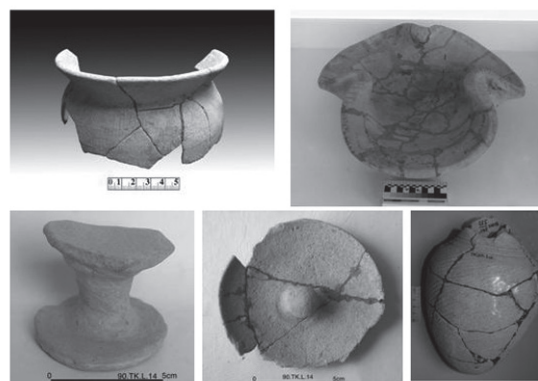


Figure 1 Group 1 : Coarse pottery – cooking and storage.

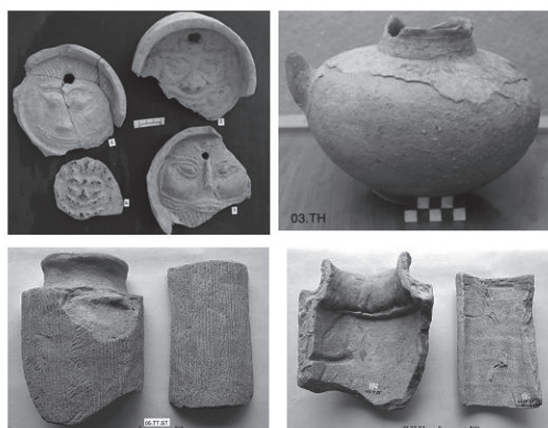


Figure 2 Group 2 : Fine, locally making under influence of China, India

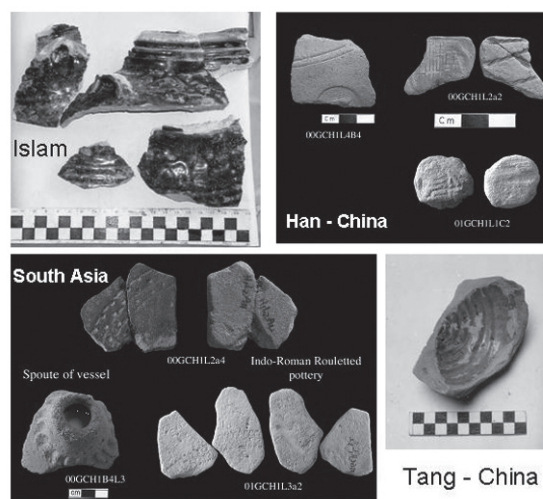


Figure 3 Group 3 : Imported pottery

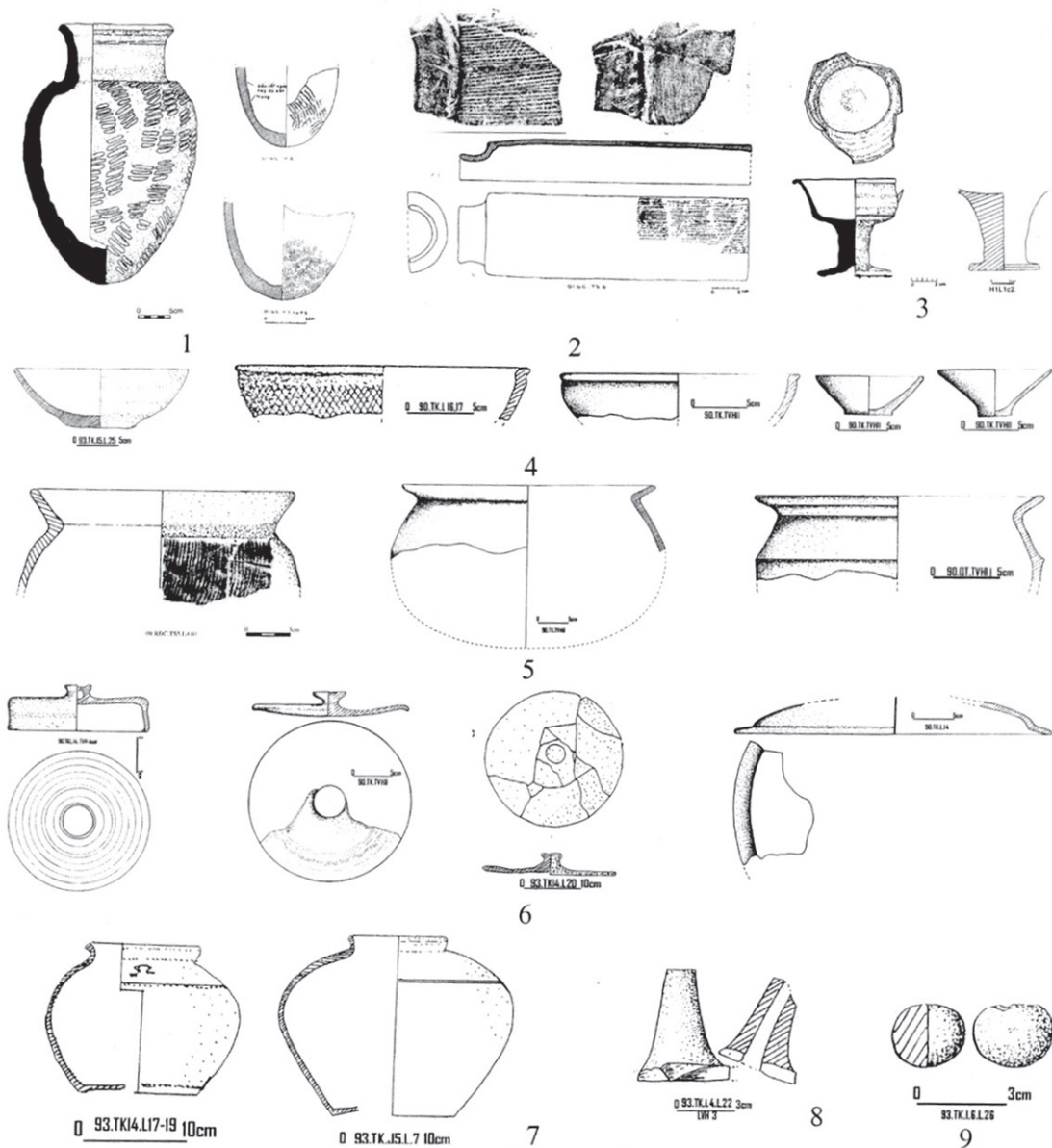


Figure 4 Champa pottery of Early period (1st – 3rd AD)

Northern Vietnam, China, India, Middle East and so on (Lam My Dung 2005) (Fig. 1, 2, 3).

Subjects of this article belong to the first and second group, including: Pottery with specific functions (egg-shaped jar, tiles produced by using the mould with cloth imprint...); Daily life (cooking, storing and tablewares); Ritual pottery (pot, jars, (garlic-shaped jars, kendi), bowls, curved bowls, plates, plate-style lights, cups, high footed cups, decorative and architectural pottery (decorative elements, end-tiles, tiles, bricks... ) (Fig. 4, 5).

Pottery yielded from Champa archaeological sites in the first ten centuries AD was various and abundant in the

perspective of form, material, shaping techniques, calcining temperature... and reflected the technical matters of production, distribution, using scope as well as the relationship between human – nature; human - society ...

The early stages of Champa culture had many dishes, especially the intermediate form between plates and bowls, small and medium-sized, plate lights, stove, high-based glass (thick foot, as little hollow legs as of the Sa Huynh culture before), pots with expanding bodies and flanged pots have the similar number. There was a decline in diversity in the type of pot compared to the Sa Huynh period, there was hardly any flowery decorative art and only the technical one

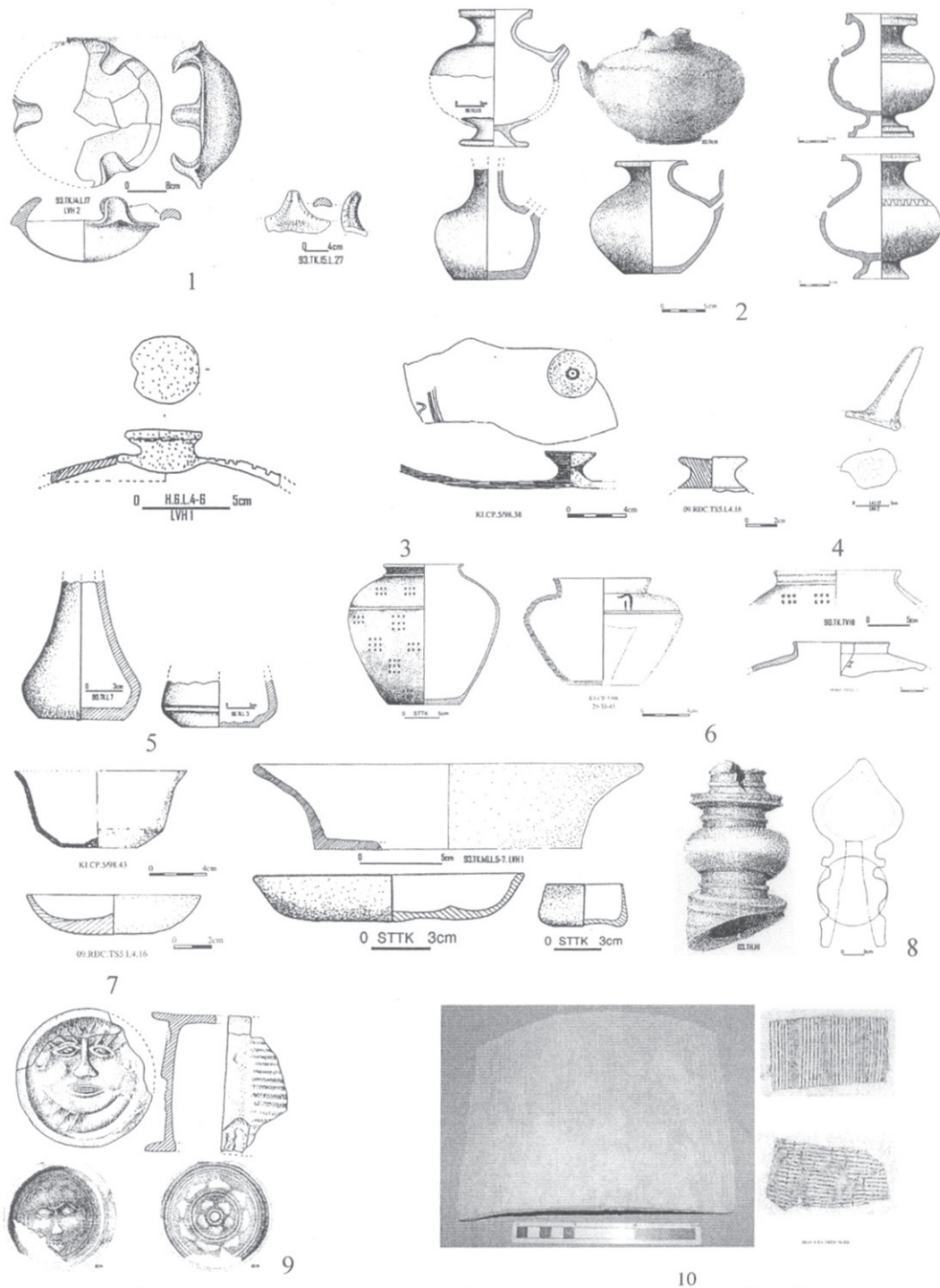


Figure 5 Champa pottery of latter period (after 3rd AD)

left, however, there was still a treatment of surface pottery by lead-based painting in the red background and raw bone potteries mixed with sand. The presence of the certain types of architectural and ritual pottery such as garlic-shaped jar, ovate jar, fabric- imprinted tiles on the timber architecture were very outstanding ... In addition to the native pottery, there were written potteries imprinted with geometry of

East Han, Indian potteries imported from outside .

The middle and developed period of Champa culture presented the continuation in producing and using of ceramics and the appearance of a series of new elements in the aspects of techniques, the producing organization and products. The demands of social organization for the state and the enhancement the role of religion ... led to the formation

of the concentration of pottery production, the new type of dedicated pottery beside the imported one and locally produced pottery simulated imported one .

### 3.2. Champa pottery processing techniques

The raw materials for Champa pottery production was red clay, this resource was exploited at the place where pottery produced. Therefore, Champa potteries before the tenth century was the red or slight yellow calcined pottery with the two main types of coarse pottery and fine ceramics. Ceramic bone was usually mixed with sand or plant residues.

Pottery was crafted by kneading technique and using turntables. The kneading technique is commonly found on the coarse pottery, crafted large sized artifacts. Pottery bone is often an uneven thickness. This kneading technique showed that the filtered preliminary processing of raw materials was not good, the pottery bone contained of plant residues with big sand. The turntable technique was widely used to process the fairly sophisticated objects with valuable art, the pottery bones were thick and even. This technique was used when the preliminary processing of raw materials was quite mature, the material was thoroughly filtered incubated and soaked, additives were completely mixed, mainly sand was small, so pottery bone was fine. Some decorative potteries, religious objects had the imprinted technique.

From the analysis of the temperature of some pottery samples, it can be seen that most potteries had been heated with an outdoor firing techniques, therefore, the temperature was not high, potteries was unstable, The calcined temperature was usually under the 800°C. The heating fuels were almost soft vegetation, which provided low heat, thus, the potteries was unevenly fired, their color was heterogeneous on the same kind. Although the calcining method of some end-tiles, tiles and architectural decoration had not high firing temperature, the surface was evenly colourful and similar to the products in some kilns in the North of Vietnam at the same time, according to the sample analysis results, the production from local-exploited material has still been unknown to researchers.

### 4. Some economic - social issues of Champa kingdom in the first ten centuries AD through the study of potteries

Potteries is useful on both following aspects:

- i. Dating “Direct fossil” and
- ii. As the evidence of the phenomenon and the exchange process and crafted producing specialization.

The appearance of many diverse types of pottery, the presence at many places in different areas reflected the more demands for using pottery in Champa community. The number of found pottery proved that Champa potteries was likely produced in households at the first stage, afterwards, due to the appearance of demands for using pottery, there appeared the large producing zones in the delta areas of Quang Nam, Quang Ngai, Phu Yen provinces, along the major rivers such as the Thu Bon; Tra Khuc; Da Rang... to meet the needs of building the political, economic and cultural centre of each region. The huge number of pottery reflected the outbreak of the Champa residents, the increasing demand for using and the development in economic and social life, formed the centre of pottery production not only to meet the demand for using, but also the religious needs. This were the solid basic premises for the Champa potteries to have the outstanding development afterwards in order to compete with the other pottery line in the area in the same time.

The particularly important concern is the relationship between craft specialization and social and political development.

The landmark change in pottery manipulation from the first and the second centuries BC were the introduction of the tile processing technique and then the bricks from the north (East Han), along with the type of soft smooth and hard clay material, in which the used clay material had been filtered thoroughly. Pottery types had a remarkable change, from the main type of tomb pottery at the stage of Sa Huynh to the household, architectural and religious potteries, all of them met many different needs of the individual and community life. However, although the pottery handicraft in the Central of Vietnam was received new techniques at this stage (directly from China or through the North of Vietnam), the porcelain and glazed potteries hardly developed due to the meet of internal developing demand. Champa pottery types also had the obvious local features, some inherited from the Sa Huynh culture period, some arising from the new demands. There was hardly any typical type



of Han pottery like in the North of Vietnam except for some lake-shaped jars and geometric-imprinted bottles.

If the pottery consortium BC in the Central and in the North of Vietnam are put together, we can see the less similarities than the differences between them, although we can not exclude the exchange and the trade between the two regions. Thus, it can be said that most of the pottery found in sites was made at place by exploiting local materials.

Champa pottery products varied with many types and sizes to serve different purposes and needs in life. The pottery decorative products have been produced with various shapes to be suitable for the architecture in each period. If the architectural potteries in the previous stage appeared the pottery cylinders, the one in the following period saw the appearance of corner-dotted decorations. If the decorative potteries in the previous stage stopped at terracotta material, small size, the next period of architectural potteries was improved in size, calcined long and hard by the kiln techniques and the use of glaze was a turning point in technique. The civil pottery was diverse in types and sizes, and had special progress in the process of development. The shapes of Champa potteries were quite stable in the process of development, the main type of bottle was egg shell-shaped with two elongated points. The shape of the sharp-bottomed jars in the third to fourth century and the vases of the thirteenth to fourteenth century was slim and elegant. The Kendis kept their shapes from the appearance until the mass production. Bowls and plates were mostly low-shaped, low base. Therefore, it is very hard to distinguish the shallow-heart bowls and deep-heart plates when classifying them. The cup-shaped pottery remained their shapes from the appearance and It can be seen that the progress of the Champa potteries along time was the technical development: kilns, processing techniques, glaze, shapes changed slowly. Perhaps those shapes matched the living conditions, living environment for the Champa potters to use and maintain in a long-term. Until now, the Champa pottery production areas in Ninh Thuan province have maintained the basic shapes in the history of potteries.

In Champa potteries, from early to late, we can see the evolution of types in different places in the tendency of simplifying the design, monotony (possibly in the standard meaning) of types. So there may have existed a degree of certain specialization, producing concentration in the

manufacture of pottery, especially some types of architectural materials and decorations used in the religious and ritual works. The objects of this type such as tube end-tile, decoratives on the end-tile with some type of standard, were found in widely separated locations (Tra Kieu - Quang Nam province; Co Luy - Quang Ngai province; Thanh Ho - Phu Yen province) but they still share common characteristics of manufacturing techniques, patterns, designs.

The popularity and level of compatibility in the types of both the coarse and fine clay pottery in the widely-separated locations in Champa culture showed the fact that in addition to the household or small-extended production, there were surely the concentrated production centres served the needs of building public works especially since the third century AD, those producing places were mostly managed and run by government agencies in each region.

The Han sharp coins were found with the first group in the lower layer of Tra Kieu, Go Cam, Hau Xa - I, Dong Na, Xom Oc sites. Obviously, the Han cultural interaction and influence in the Central took place at the very early stage, mainly in terms of trade, exchange and the directly influenced not only on the economic but also political and ideological aspects. At Go Cam site, there found some ceramic objects and terracotta such as "*phong nê*" considered exotic but well-characterized of Han (Ian Glover, Nguyen Kim Dung and Ruth Prior 2001) In addition to this type, there also found some ceramics or half-China items of East Han - Six Dynasties scattered in several places as Hau Xa I, Tra Kieu, Go Cam sites...

The group of half-china and Chinese porcelain found in the Champa cultural port town sites was mainly the porcelain ceramic group of the Sui - Tang - Song dynasties. This group was found in most sites surveyed from Quang Tri to Quang Nam provinces. In the excavated pits in the sites dating from the seventh century onwards, the largest collection was in Bai Lang and Nam Tho Son.

Until now, there was only a piece of pottery identified originating directly at Tra Kieu from India. That was a small piece of Roulette ware and similar to the type found in Arikamedu and some other areas in Eastern India, by the quantitative analysis, it was also showed that its ceramic bone components were the same as those in Arikamedu, dated from the mid third century BC to first century AD (Trinh

Sinh and nnk 1993)

The South Indian trade pottery shards were found in Go Cam site as well. These shards of gray, smooth, trimmed in two rows of fine dots were the characteristics of Indo-Roman Greyish Ware pottery, maybe originated from Ari-kamedu (South India) (Nguyen Kim Dung 2005).

However, these pottery shards from the South were only found in some early places and very few in quantity compared with the potteries originated from the North. Noticeably, the Indian pottery was found only in the cultural layer dating from the mid first century AD to the early second century AD. In the later cultural layers, the kendi types and the jars with hoses were very popular and considered the prototype from India with fine clay materials produced on site.

Thus, the increase in foreign trade may be considered a driving force behind producing specialization and vice versa. The two-way relationship can be seen in the study of foreign technology and the imitation of types, the increase in the level of standardization and the centralization of production. The psychology and trust of preferring foreign goods stimulated the local production of similar goods.

In the current situation of documents, there is almost no in-depth study on the determination of the producing techniques, the different types of ceramic shaping techniques, the division of labor, the gender of the potters and the working time, the producing organization and distribution of the Champa residents in the first ten centuries AD ... therefore, in the future, the application of some archaeological interdisciplinary methods (sociological surveys, ethnography, technology ...) should be paid more attention to clarify those above issues.

## CONCLUSION

There were huge fluctuations across the whole Southeast Asia during the first ten centuries AD, Champa is not beyond the context. Right from the first centuries of formation, Champa had taken the advantage of its favorable conditions to establish relations not only with China but also with many other contemporary countries in the region such as Funan, Chenla and the island nations. These features of culture and history of the Champa kingdom had a direct impact on the formation and transformation of the handi-

craft industries, especially the pottery.

Based on the evolution of pottery, the process of cultural evolution from the first century to the seventh and eighth centuries in the Central of Vietnam could be mapped as follows:

The early period - from the mid-and late first century AD to the late third century AD and can be classified into two classes

a. The earliest class with egg-shaped jars and fabric-imprinted tiles. Coarse pottery had a number of inherited factors from the Sa Huynh culture. In the ceramic production there were technical factors from outside, especially the Dong Han pottery. Tile-roof architectural wood. This class was found at some following locations:

- i. Da Nang city- at the location of Vuon Dinh – Khue Bac;
- ii. Quang Nam – Go Cam and Tra Kieu;
- iii. Quang Ngai - Ly Son Island. This earliest class lay from the first century to the mid-second century AD.

b. The next class lay from the second century to the end of the third century AD. Basically, it inherited the cultural factors of the earliest, but the egg-shaped jars and the fabric-imprinted tiles gradually disappeared. Coarse and fine potteries were parallel to each functional type, the smooth potteries increased in the number and type.

The relics of the early period reflected the rapid and strong intensity of the exposure and exchange of politics, economy and culture with the outside world, especially with China and as the result, the inner transformation took place.

The late Period - From the fourth century to the ninth and tenth century and onwards. The architecture of rolling roof tile, bricks. End-tiles, especially clown-faced pipe tiles which are similar to those in Nanjing relics (China) dating from the early Six Dynasties were very popular in many relics from Quang Nam to Phu Yen provinces, followed by the tiles decorated with lotus, clouds. There appeared details and architectural decoratives such as add-shaped decoration, nail pottery..., and artifacts related to religion (Buddhism) such as the rectangular objects (Buddhist pieces), pyramid ... Coarse pottery inherited the potteries tradition of the early period and fine potteries particularly developed. In addition to the native pottery, there were Sui - Tang (China) and Islam (Middle East) potteries... Pottery as well as many other artifacts must meet the new needs of social relations, social structures and their material and spiritual

life.

The agreement in the standards of types and processing techniques of building and architectural materials, such as pipe tiles, bricks, tiles in the late period (since the fourth century) reflected the relative consistency between the economic - political centres of the polities of the early state and the developed state formed and developed since the first century AD onwards.

The production and distribution of pottery (different types) played an important role in the history of Champa politics and economy. Compared with the previous period, (from the earliest to the tenth century), Champa pottery developed remarkably, marking the advance in pottery production. That boom came up from the tradition of pottery production in the Sa Huynh culture and had the creative features of continuous development of pottery production in the process of history and contained the features received from the outside pottery production centres. All integrated to help Champa ceramics at this stage develop to a higher level, as high as the other centres of ceramic production in the region. The pottery products were made not only to meet the domestic needs, but also to exchange with other countries in the region. The ceramic occupation became the economics which played an important role in the life of the Cham people in history.

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